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Medical Center
DIGITAL IMAGE RUNNING INJURY PREVENTION PROGRAM

1. History

This issue publishes a revision of this publication. *This pamphlet supersedes NARMC Pamphlet 40-6 dated 9 January 2003.

2. Applicability

The Running Injury Prevention Program reduces lost time for military personnel who would need medical treatment not normally available within the North Atlantic Regional Medical Command (NARMC).

3. Purpose

This clinical business practice is a guide to the successful implementation and operation of the NARMC Running Injury Prevention Program.

4. References

- A. TeleShoe Clinic Training Manual.
- B. TeleShoe Clinic Consult System On-line Instruction.
- C. Running Injury Prevention Program Deployment Process and Requirements.

5. Scope of Care

The Running Injury Prevention Program provides evaluation and education in the selection of proper running shoes based on biomechanics, bodyweight, and training resulting in fewer running injuries. This evaluation provides a convenient, reliable and cost-effective method of extending the benefits of Digital Video tape Gait Analysis to patients around the world. The actual running gait analysis involves making two digital video recordings of the runner's gait on a treadmill, first barefoot and then in running shoes. Both recordings are analyzed to reach a diagnosis of running gait and proper shoe recommendation. Finally, the information and the diagnosis are collated into a running shoe report which details the information gained about that person's running style and a running shoe list is generated specifically for the patient. Typically, consults are sent to exercise physiologists at the DiLorenzo TRICARE Health Clinic in the Pentagon who provide the appropriate diagnosis and running shoe/training recommendations.

6. Responsibilities

- A.. Referral Facility:
 - (1) Facility Commander:
 - (a) Ensure awareness of the Running Injury Prevention Program and its accessibility for normal medical operation.
 - (b) Ensure awareness of the Running Injury Prevention within their area of operation.
 - (c) Review all department participation, coordination and training.

(2) Requesting Health Care Provider:

- (a) Executes interview and makes video images of the patient's gait.
- (b) Establishes and manages the secure Web-based on-line patient's record.
- (c) Enters required data into the automated system and ensures that the entire consult process is completed.

B. Local Exercise Physiologist:

Performs all duties of a Requesting Health Care Provider and/or may diagnosis and prescribe running shoes as described in the Consultant's role in accordance with the Running Injury Prevention Program.

C. Regional Consultant:

- (1) May perform same duties as a Requesting Health Care Provider.
- (2) Reviews Running Injury Prevention Program Web-based content, making diagnoses on patient running condition and level, and provides running injury prevention education and prescribes selection of specific running shoes based on patient data.

D. NARMC Telemedicine Deployment Team:

The Deployment Team is responsible for providing all technical support and training to the designated site.

E. Program Manager:

- (1) Coordinate clinical, technical and operational requirements.
 - (a) Gathers and prepares necessary documentation for relevant training manuals, clinical business practices and system maintenance and support documentation.
 - (b) Monitors compliance with necessary legal and or ethical restrictions, including formulation and update of necessary privacy and or security policies, as well as oversight of any intellectual property right in the system that may be owned by the government or for which the government might be obligated/liable to third parties.
- (2) Coordinate system deployment, maintenance and sustenance.
 - (a) Oversees development suggestions in order to ensure a uniform product.
- (3) Perform application administrator functions on a daily basis to include:
 - (a) Maintains user accounts, authorizing and deleting users from the system.
 - (b) Monitors system throughout, to ensure timely consult follow-up.
 - (c) Monitors overall system performance and availability.
 - (d) Monitors to ensure scheduled backups are performed on data and software applications.

F. Program Director:

- (1) Responsible for the management and operation of the Running Injury Prevention Program.
- (2) Coordinates with Program Manager, Regional Consultants, and remote facilities.
- (3) Provides application and clinical training to users at all levels.

7. Program Overview

There are a number of steps in the Running Injury Prevention Program and each step requires and uses a specific form or document. The forms / documents used in the process are:

A. Patient Registration: Patient enters information into a secure Web-page. Upon completion of this form you will be lead to completing:

- B. Worksheet: Patient enters information into a secure Web-page.
- C. Interview Data Sheet: performed online through a secure Web-page.
- D. Capture of running video (with and without shoes): video captured online.
- E. Shoe Recommendation: generated by Web application.
- F. Running Shoe Report: generated by Web application and emailed to patient.

8. Requirements

- A. Referring Site Requirements are identified in the Running Injury Prevention Program Deployment process and requirements document.
- B. Referring / Consulting Site Requirements:
 - (1) A site that desires to be both a referring and consult site must have on staff as a consultant an Exercise Physiologist who will be trained to answer the consults generated for that site.
 - (2) The Exercise Physiologist is required to be trained by the Running Injury Prevention Program staff at the Pentagon located in Virginia. The training period is three to five days. Once trained the new site's Exercise Physiologist may start answering consults.

9. Consult Generation Process

A. Consult Management Process

The Running Injury Prevention Program minimizes administrative procedures for the requesting Health Care Provider by including all required forms (including SF 600).

B. Initiate Consult

Once a Health Care Provider (HCP) decides a patient is a candidate for the Running Injury Prevention Program:

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- (1) The HCP explains "Telemedicine" and provides a Telemedicine Information Paper to the patient. The patient is asked if he would like to participate in the program. If so, the patient is given the Patient Telemedicine Consent Form.

- (2) The HCP assists the patient with the online patient registration and the patient completes the registration form.
- (3) The patient is requested to fill out the "Patient Running Worksheet Data" online.

C. Patient Interview Process

- (1) The Health Care Provider conducts a patient interview concerning information on training Injuries due to running, running schedule, mileage, distance, speed, cross training, flexibility, and strength training. This data is entered into the Web application.
- (2) The Health Care Provider examines the patient's shoe wear patterns, height of foot arch and gross postural highlights.
- (3) The Health Care Provider takes the required digital images (MPEGs) of the patient, which are captured directly into the Web application. The MPEG files are reviewed for acceptability and if need be, retaken.
- (4) The Health Care Provider reviews the collected information with the patient and the information is modified if required. Otherwise, the information is submitted to the consultant.

10. Consult Response Flow

- A. The Exercise Physiologist accesses the Web based application reviews the pending consult request and generates a patient specific running injury prevention education sheet as well as a list of running shoes designed for the patient's weight and specific running condition.
- B. The Web application automatically generates and sends the consult response in an e-mail Message to the requesting site Health Care Provider and patient if the patient provided his/her e-mail address during the registration process.

C. Site Notification

- (1) The Health Care Provider receives the consult response via e-mail
- (2) The Health Care Provider can either: (1) notify the patient to set up an appointment: (2) or e-mail the shoe recommendation list and shoe report to the patient.

11. Record Keeping

Information collected during the patient encounter is entered into a secure, limited access, electronic medical record and is able to be access by authorized users who may generate standard medical forms such as the Standard Form 600 documenting the patient encounter.

12. Workload Credit

Individual clinics determine how to count for workload credit following with local clinical guidelines.

The proponent agency of this publication is the office of the North Atlantic Regional Medical Command, Walter Reed Army Medical Center, and Telemedicine Directorate. Users are invited to send suggestions and comments on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, Walter Reed Army Medical Center, ATTN: MCAT-CL-T, 6900 Georgia Avenue N.W., Washington, DC 20307-5001.

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